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ABSTRACT

This booklet is designed to serve as a resource to both formal and nonformal environmental educators, as well as others (students, community leaders, and parents) interested in the field of environmental education. It contains lists of programs, resources, contacts, and information related to the Environmental Protection Agency's (EPA) environmental education program. In addition, this booklet contains environmental education information specific to EPA Region 5 and the States in this region (Illinois, Indiana, Michigan, Minnesota, Ohio, and Wisconsin). Topics of discussion include background on the field of environmental education, the National Environmental Education Act, the Environmental Education Division of the EPA, and descriptions of a variety of programs including grant programs and youth programs. A resource section contains a list of 11 programs described within, as well as addresses and phone numbers of people who can be contacted for additional information. (LZ)

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United States
Environmental Protection
Agency

Region 5
77 West Jackson Boulevard
Chicago, Illinois 60604

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1994

EPA

THE ABC's OF ENVIRONMENTAL EDUCATION

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

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This booklet is designed to serve as a resource to both formal and nonformal environmental educators, as well as others (students, community leaders, parents) interested in the field of environmental education. It contains lists of programs, resources, contacts, and information related to the U. S. Environmental Protection Agency's (EPA) environmental education program. In addition, this booklet contains environmental education information specific to EPA Region 5 and the States in this region (Illinois, Indiana, Michigan, Minnesota, Ohio, Wisconsin). At the end of this booklet, you will find a list of all the programs described within, as well as addresses and phone numbers of people who can be contacted for additional information.

Environmental Education – Where Did It Come From? Where Is It Heading?

While environmental education as a distinct field did not emerge until the late 1960's, it traces its roots back to the turn of the century, to three educational movements, whose influence is still felt today. These are nature study, conservation education, and outdoor education. Their impact on the field can be seen in the outdoor classrooms, nature trails, and wilderness experiences that are often components of current environmental education curricula. Over the past two decades, however, this limited description of environmental education has expanded and now includes much more than outdoor education and nature study.

> John J. Kirk, in *The Quantum Theory of Environmental Education*, says: "As the environmental problems increased in significance and number, an educational phenomenon began to take place. These external pressures in our society forced the philosophical components of outdoor education and conservation education on a collision course, and in the late 1960's there was a mixing and blending which resulted in a great explosion or quantum jump, which produced a new product, a new philosophy, a new approach: environmental education."

This new product, environmental education, places a special emphasis on the social dimensions of environmental problems. Its focus is on creating a citizenry that possess the awareness, attitudes, knowledge, skills and motivation needed to address these problems.

International conferences on environmental education during the 1970's have helped build and define the emerging field of environmental education. A consensus has begun to emerge about what constitutes environmental education and about the field's goals and guiding principles. In general, these goals and guiding principles indicate that environmental education should increase awareness and knowledge about environmental issues as well as provide the skills necessary to make informed decisions and the motivation to take responsible action.

National Environmental Education Act

In 1990, Congress passed the **National Environmental Education Act**. Under the leadership of EPA, the Act directs the Federal Government to play a strong role in increasing the public's environmental literacy by focusing on the education of youth and the training of individuals for environmental careers. The Act encourages partnerships and builds upon long-standing environmental education efforts among Federal agencies, local educational institutions, State agencies, nonprofit organizations, and the private sector. Some of the broad provisions of the Act include:

Establishing an **Environmental Education Division (EED) within EPA**;
Creating an **Environmental Education and Training Program**;
Awarding environmental education **grants**;
Providing for environmental **internships**;
Initiating a national environmental education **recognition program**;
Forming communication **networks** between EED and environmental educators nationwide; and,
Establishing a **National Environmental Education and Training Foundation**.

The provisions of the Act are carried out by the Environmental Education Division located at EPA Headquarters in Washington, D.C. along with EPA's 10 regional offices. This booklet first describes EPA's national program and then focuses on environmental education programs in EPA Region 5.

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Environmental Education Division

The primary mission of the **Environmental Education Division** is to advance and support national and international environmental education efforts, to develop an environmentally conscious public, and to inspire in all individuals a sense of personal responsibility for the care of the environment. The role of EED is to:

Provide leadership in environmental education within the Federal Government;
Help improve communication among all involved in environmental education;
Help identify gaps in environmental education resources; and,
Be an advocate for environmental education efforts nationally and internationally.

In order to carry out EPA's environmental education program, EED must collaborate with a large and varied audience. EPA recognizes that it has joined a growing field with many documented successes. EPA's goal is to build upon these successes by collaborating with formal educators (K-12, post-secondary); nonformal educators (naturalists, museum curators, etc.); students of all ages; colleges and universities; other Federal, State, and local agencies; nonprofit organizations; the private sector; and, the media. EPA is establishing partnerships with these different audiences to further environmental education.

Several programs and efforts at the national level enable EPA to become partners with the organizations above for the advancement of environmental education. Following is a summary of these efforts.

Students monitor water quality in Southern Illinois University's Rivers Project.

Three-Tiered Communication Network

The Environmental Education Division has placed a high priority on expanding communication networks and fostering the development of partnerships. To that end, several formal communication and advisory networks have been established:

The **EPA Environmental Education Advisory Board** is an internal EPA network that includes representatives from headquarters and regional offices, as well as from research laboratories. It advises EED on environmental education programming and serves as a conduit for internal agency communication.

The **Federal Task Force on Environmental Education** is a Federal Government network that consists of EPA and other Federal agencies, including the Departments of the Interior, Agriculture, Energy, State, Health and Human Services, as well as NASA and the Peace Corps. This task force and EPA were hosts of the **November 1991 Environmental Education Conference**, where environmental educators from the United States met and exchanged ideas about environmental education.

The **National Environmental Education Advisory Council** is a network of 11 environmental and educational experts from around the country who represent schools and universities, nonprofit organizations, States, the private sector, and senior citizens. This council helps to ensure that many of EPA's objectives and program ideas are consistent with the goals and directions of the environmental education field.

National Environmental Education and Training Foundation

In addition to EED and the communication network, the National Environmental Education Act establishes a **National Environmental Education and Training Foundation** that facilitates and expands the use of public and private resources to advance environmental education and training, as well as to foster open and effective partnerships between all elements of the private sector and all levels of Government.

The Foundation is a charitable and nonprofit organization. In addition to facilitating cooperation among individuals and groups from the public and private sectors, the Foundation also has authority to make grants. Organizations interested in applying should call or write the Foundation and ask for a **Statement of Priorities and Programs**, which includes detailed instructions for making a grant application. (Contact information is listed at the end of this booklet.)

GRANTS

EPA administers two grant programs under the National Environmental Education Act: the Environmental Education and Training Program, and the Environmental Education Grants Program.

Environmental Education and Training Program

The National Environmental Education Act authorizes EPA to make a grant to an academic institution, or consortium of institutions, to establish a national program that will train educational professionals in the development and delivery of environmental education programs.

In 1991, more than 80 academic institutions and non-profit organizations competed for this first-time grant which totals one-fifth of the annual EED budget. Although the actual grant award is made annually, EPA has operated the program under a three year budget period. EPA expects to continue soliciting proposals and funding this program on a three year basis. The target date for the next solicitation notice is the summer of 1994 with an award date in the spring of 1995. All announcements about this program will appear in the *Federal Register*.

In 1992, EPA awarded a $1.6 million grant to the University of Michigan under this program. In 1993, EPA awarded $1.8 million to the same institution. With the grant, the university established the **National Consortium for Environmental Education and Training** (NCEET), a group of academic institutions, corporations, and nonprofit organizations. The NCEET program targets in-service teachers (K-12), as well as nonformal educators, and includes curriculum development and evaluation, teacher training, and information dissemination. Two of the principal consortium programs that educators can use as resources are:

The Environmental Education (EE) Toolbox

When completed, the Toolbox will be a resource manual with supplemental materials for teacher trainers to use in developing in-service environmental education workshop opportunities for K-12 teachers.

EELink

When completed, this electronic resource will be available to educational professionals with access to the Internet computer network. Information sources will reference local environmental education resources, Toolbox units, environmental education success stories, and curriculum bibliographies. In addition, EELink will provide easy access to other databases and resources. Contact NCEET for information on how to access programs currently available in EELink.

Environmental Education Grants Program

Through its national and regional offices, EPA also manages a grants program that funds many innovative programs and projects developed by schools, colleges and universities, State/local/tribal education agencies, and nonprofit organizations. Although some projects are national in scope, the majority respond to regional, State, and local needs.

In 1992, the first year of the program, EPA's call for proposals resulted in over 3,000 applicants who requested more than $100 million in funds. That year, EPA awarded its congressional appropriation of $2.5 million in grants ranging from less than $5,000 to $250,000. In 1993, EPA awarded its congressional appropriation of $2.7 million, an increase from the previous year. In 1994, EPA awarded $3 million.

Each year, EED issues a call for new grant applications. The announcement is printed in the *Federal Register* and is sent out to EED's mailing list. Grant applications in excess of $25,000 and up to $250,000 compete at the national level, while grant applications

National Grant Awarded in EPA Region 5

In 1992, EPA Headquarters awarded the **Chicago Academy of Sciences** $117,825 to fund the *Ecological Citizenship Program (Eco-Cit)*, a model program designed to meet the specific needs of urban environmental education. Eco-Cit, a hands-on environmental education outreach program created to address the need for environmental teaching in inner-city schools, is geared toward K-8 inner-city teachers and their students. In 1992, the program was successfully conducted by the Academy in four inner-city Chicago schools, which serve a mostly African-American and Hispanic population.

Chicago elementary students paint over dumpster graffiti in Eco-Cit *community clean-up project.*

The 1992 Eco-Cit program began with an environmental poster contest. Students from the four schools competed, and 1,000 copies of the winning poster were made and distributed to teachers, principals, and students. As the year progressed, students and teachers did a variety of projects, including school and community cleanups and beautification, classroom lessons and environmental activities, parent workshops, and an Eco-Fair. The Eco-Fair was the culminating event of Eco-Cit, and students from the four schools met for a day-long celebration, with their parents and teachers, to display their classroom Eco-Fair projects.

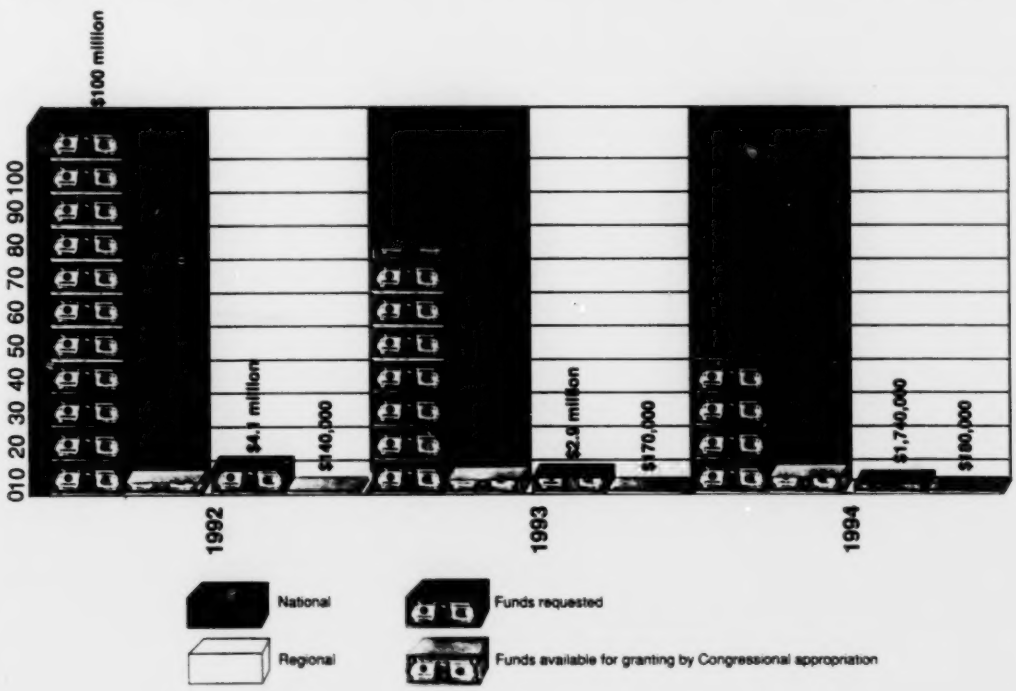
Eco-Cit is an ongoing program, and new schools are targeted for the future. Meanwhile, the Chicago Academy of Sciences plans to help 1992 Eco-Cit participants continue developing the links between parents, schools, and communities that were formed as a result of this inner-city environmental education program.

for $25,000 or less compete at the regional level (see page 11 for more information). Of the money available in the Regional offices, about half is slated for grassroot programs of $5,000 or less. Proposals requesting $5,000 or less have the greatest chance of being funded due to a requirement to fund grassroot programs in the National Environmental Education Act.

The grants, usually awarded in the spring, fund a wide variety of programs. Projects are generally chosen for their innovation and ability to be replicated in other communities and regions. The box on page six highlights a national grant recipient awarded by EPA Headquarters in the Region 5 area.

Grant funding is often an integral part of environmental education programs. In order to help educators obtain grant funding for environmental education programs, EPA entered into a cooperative agreement with the North American Association of Environmental Education (NAAEE) to prepare a booklet entitled *Grant Funding for Your Environmental Education Program: Strategies and Options*. This booklet offers environmental educators basic information on identifying and researching funding sources, as well as preparing competitive proposals. For more information, contact: NAAEE, Publications and Membership Office, P.O. Box 400, Troy, OH, 45373.

EPA GRANT DOLLARS REQUESTED NATIONALLY AND IN REGION 5



Youth Programs

EPA has a long-standing commitment to educate youth about the importance of environmental protection. Among the key youth environmental education activities are:

❍ **Students Watching Over Our Planet Earth** is a laboratory educational program offered through a partnership between EPA and the U.S. Department of Energy. It teaches students about science through hands-on environmental research.

❍ **TRAIL BOSS** is a volunteer conservation skills program developed by EPA and the U.S. Departments of Agriculture, Interior, and Defense. It teaches volunteer leaders the specialized skills needed for training and leading volunteer crews involved in conservation projects.

❍ EPA is also developing partnerships with established youth programs such as the **Boy Scouts of America**, the **Girl Scouts of the United States of America**, and the **National 4-H Council**.

Scouts from Troup 4, Ann Arbor, Michigan participate in a beach sweep program.

Award Programs

EPA Administrator Carol Browner presents the Theodore Roosevelt *award to Howard H. Michaud of West Lafayette, Indiana, for his 70 years of contributions to environmental education.*

EPA honors dedication to the environment by students, environmentalists and educators through two award programs:

❍ EED has established the biennial **National Environmental Education Awards** to recognize individuals for their outstanding contributions to environmental education. The awards, which commemorate Theodore Roosevelt, Henry David Thoreau, Rachael Carson, and Gifford Pinchot, are given in four categories: teaching; literature; print, film, or broadcast media; and, forestry and natural resources management. The first awards were given in May 1993.

❍ The **President's Environmental Youth Awards** recognizes outstanding commitment to the environment by the Nation's youth. Since 1971, young people across the Nation have competed annually in this program by submitting individual or group projects that focus on environmental protection. Each year,

EPA Regions send out applications to public and private schools. (All public and private schools in the 6-State Region 5 area receive applications.) To be eligible to compete, a student or group of students, sponsored by an adult, must submit to EPA evidence of a completed project, as defined in the application. Applications must be postmarked each year by July 31. National award winners are selected by each EPA regional office and are invited to participate in an awards ceremony in Washington, DC.

Internships

EPA's Environmental Education Division participates in various **internship programs** to help place college interns in various EPA program offices involved in environmental protection. The internships aim to encourage college students to pursue environmental careers. EPA gains a great deal from the experiences and knowledge that interns bring to the job.

One particular program that EED administers is the **National Network for Environmental Management Studies**. The program aims to obtain high-quality studies on EPA's priority environmental and program management issues by recruiting students from a network of universities. EPA headquarters and regional offices send lists of their priority issues to universities with programs in environmental policy, resource management, public administration, and related fields. Students from these universities submit a one-page proposal to the EPA sponsoring office. Once study details have been agreed upon, the sponsoring office provides the selected student with either a fellowship or a paid internship in exchange for a final study or report.

Environmental Software Programs

Since 1988, EPA Region 5 has been working with the Agricultural Engineering Department at Purdue University in Indiana to produce a series of interactive environmental software programs. The project started under the **National Network for Environmental Management Studies**, and from 1988 to 1990, students teamed up with EPA subject-area experts to create the first six software programs which cover a variety of water-related environmental topics.

The project has since grown extensively and more than 30 programs are currently available, with several new programs in development. While most of the environmental software deals with water-related issues such as agricultural pollution prevention or wetlands, newer programs have a broader focus, and include topics such as health issues, pesticides, and lead contamination.

The software reflects constantly evolving computer technology, and helps the user learn about, and solve environmental problems. Most programs are intended for an adult audience; however, some are suitable for secondary students. Several programs have been translated into Spanish. All of the programs are public domain and may be copied and given to interested users. These programs have been distributed in all 50 states and in more than 70 foreign countries.

Pollution Prevention Environmental Education Project

In 1990, EPA formed a national **Pollution Prevention Environmental Education Task Force** consisting of EPA employees who are advised by environmental education experts from outside EPA. The task force surveyed existing national environmental education curriculum for materials with a pollution prevention focus. Once the task force collected a clearinghouse of materials, it identified gaps and merged curriculum resources. The task force plans to compile teaching units that focus on the integration of pollution prevention into environmental education. Materials will be geared toward K-12 teachers and students.

International Partnerships

EPA recognizes that the commitment to environmental protection transcends national boundaries. The United States does not have a monopoly on effective ways to educate the public about environmental issues and problems. Therefore, protecting human health and the environment in the United States requires the forging of international partnerships. For example:

- In collaboration with EPA's Office of International Activities, EPA's Environmental Education Division developed a **Trilateral Memorandum of Understanding on Environmental Education** with Canada and Mexico to promote environmental education in North America.

- EPA is supporting several public-private initiatives in various regions of the world, including the establishment of the **Caribbean Environment and Development Institute** (Puerto Rico, 1992), the **Regional Environmental Center for Central and Eastern Europe** (Budapest, Hungary, 1990), and the **Environmental Education and Information Center** (Kiev, Ukraine, 1992).

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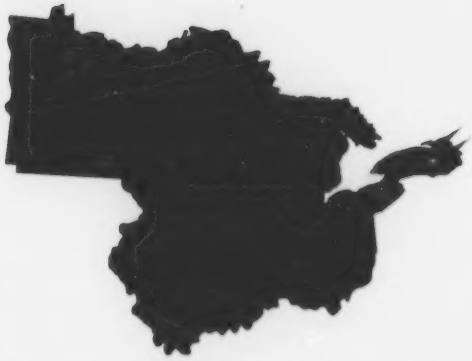


EPA Region 5 is headquartered in Chicago. Within EPA Region 5, the environmental education program is coordinated through the Office of Public Affairs, with the help of an environmental education workgroup consisting of representatives of EPA programs such as Air and Radiation, Water, Waste Management, Regional Counsel, Planning and Management, the Environmental Sciences, as well as EPA's Great Lakes National Program Office. The workgroup serves as the central coordinating body in the region for environmental education.

Environmental **education** is relatively new to Region 5 — the program began in 1990 with the passage of the National Environmental Education Act. Since the establishment of EPA in 1970, Region 5 has provided environmental **information** to the public through hotlines, a speakers' bureau, publications, and other resources. The passage of the Act, however, has enabled EPA's Regional office to work more closely with students and the educational community through grants, teacher workshops, internship programs, and environmental education awards. In addition to carrying out national programs administered by the Environmental Education Division at EPA Headquarters, Region 5 has its own unique educational programs that involve a variety of audiences.

Region 5 Grants Program

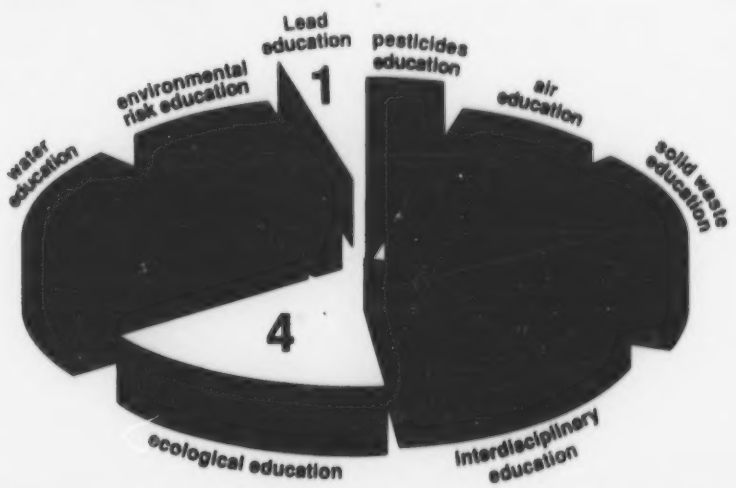
In 1992, the first year of EPA's environmental education grants program, Region 5 received 315 pre-applications requesting more than $4.1 million in funds. That year, Region 5 funded 22 proposals with the $140,000 it had available. In 1993, each EPA Region was authorized to grant $170,000 in environmental education funds. Region 5 received 240 pre-applications requesting more than $2.9 million. Twenty-three proposals were funded. In 1994, Region 5 received 170 pre-applications and funded 23 grants with the $180,000 it had available.

Through the grants program, Region 5 has awarded money to tribal and local agencies, colleges, universities, State education and environmental agencies, schools, and nonprofit organizations in all six States in the Region to carry out unique environmental education programs with wide application.

Because the program is competitive, grant applications go through a rigorous review process. They are first screened and rated by an environmental education

workgroup consisting of EPA employees with varied environmental and educational expertise. Proposals that receive high scores in the first tier are sent out for evaluation to environmental education professionals external to EPA. About 50% of the total funds allotted annually to Region 5 are awarded for grants of $5,000 or less, as required by law. In the first three years of the grants program, 55 of the 68 grants EPA Region 5 funded were for $5,000, or less.

Funded Grant Projects in Region 5



Breakdown by subject-area of grant projects awarded in 1993

During 1992 and 1993, the first two years of EPA's grants program, EPA Region 5 awarded a total of $310,000 to fund 45 programs in its 6-State area. These awards ranged from less than $1,000 to $25,000, and covered a wide variety of topics. Examples of 1992 and 1993 grant winners include:

❍ **Grand Cal Task Force** (Indiana). In 1993, EPA awarded $5,000 to the Grand Cal Task Force, to broaden a program aimed at educating students in at least 30 secondary schools in Northwest Indiana. Members of the Grand Cal Task Force will travel to schools in Northwest Indiana with a slide show which addresses the problems of the Grand Calumet River. This program seeks to educate students and teachers about the potential for restoring and protecting this ecosystem through pollution prevention.

❍ **Washtenaw County** (Michigan). EPA awarded $20,000 to Washtenaw County in 1992 to fund an "Environmental Equity Internship Program." This award was used to support a 6-week environmental internship program for eight high school minority students from the Ypsilanti and Ann Arbor areas. In summer 1993, students were placed as paid

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interns in five Washtenaw County government environmental offices. Student activities included soil sampling, mapping tributaries, well permitting, and working with programs such as Adopt-a-Waterway. After the internship program, students presented their experiences at schools, churches, and other organizations in their communities.

❍ **Gaia Theater** (Illinois). In 1992, EPA awarded $4,875 to Gaia Theater in Chicago to develop "The Dr. Energy Show," which used a satirical medicine show-vaudeville format to address the problems of energy waste, global warming, and the greenhouse effect. Juggling, acrobatics, vaudeville "schtick," and rap music were all used to make the energy conservation message appealing to 4th through 8th grade audiences. EPA funds were used to research, write, rehearse, and perform the show for 3,500 students at 10 low-income schools in the Chicago area. A packet of learning activities was also created and distributed to teachers at the schools. Gaia still performs the show today.

Gaia Theater presents "The Dr. Energy Show."

❍ **Northwoods Audubon Center** (Minnesota). In 1992, EPA awarded $20,000 to the Northwoods Audubon Center in Sandstone. The funds were used to support a pilot environmental education program that integrated environmental education into the *Wilderness Inquiry Program* for youth with disabilities. Funds were also used to train staff and develop a staging area and curriculum that served youth with disabilities such as multiple sclerosis, cerebral palsy, blindness, epilepsy, and deafness. This program worked to allow youth with disabilities to make the most of their environmental, vocational, educational, and leadership potential.

❍ **Northeast Ohio Greens** (Ohio). In 1992, EPA awarded $2,500 to Northeast Ohio Greens in Cleveland, to teach people in low-income areas how to raise and preserve nutritious food without the use of pesticides. Thirty people, from age 16 to 60, took part in the "Growing Together Organically" project, which used vacant lots and low-income housing to establish gardens and compost areas. In 1993, EPA awarded a second grant of $4,500 for the continuation of the project, which will broaden its focus to include elementary students in low-income areas, homeless women and children, and runaway adolescents.

❍ **University of Wisconsin — Stevens Point, Native American Center** (Wisconsin). In 1992, EPA awarded $5,000 to this grantee for the "Environmental Awareness Summer Youth Practicum." American Indian students from many tribes across the United States participated in this 2-week, pre-college program about resource management and Native American culture.

Educational Resources

EPA Region 5 makes available to the public a wide array of environmental education publications and materials, including curriculum materials, posters, coloring books, and films. Materials are geared primarily to students in grades K-12, and are used by educators in both formal and nonformal settings. Educators or students interested in receiving publications or learning more about what is available can contact EPA at 1-800-621-8431 between 9 am and 4:30 pm CST. Region 5 is in the process of translating a few of the more popular educational materials into Spanish.

Partnerships With Post-secondary Institutions

Both nationally and regionally, the EPA has an ever-increasing need for well-trained, qualified scientists, engineers, and other environmental specialists to meet the technological demands of the future. To assure a pool of highly trained personnel for environmental research and development, EPA is working closely with post-secondary institutions. An innovative program that allows EPA to form partnerships with a variety of post-secondary institutions is highlighted below.

College student works in EPA's Central Regional Laboratory during EPA's Academic Relations 1993 internship program.

The **Academic Relations Program** was established in 1992 to help meet the requirements of EPA's research, environmental, and scientific needs. EPA staff work with selected colleges and universities in the 6-State Region on mutually beneficial programs. EPA's effort focuses on schools with significant minority populations that have a reputation for producing high-quality students, especially in science and engineering. EPA's role is to provide educational support and technical assistance to students, career and job-fair opportunities, and an agency communication network. It aims to enhance the education and training of students by formalizing and strengthening ties between schools and EPA. In the summer of 1993, EPA worked with several students from partnering colleges and universities in a summer internship program.

Teacher Education

In Region 5, the primary focus of teacher education workshops has been on the Great Lakes, since all of the Region's 6 States adjoin this important ecosystem. Through interactive

Educators from Northwest Indiana participate in EPA's first Great Lakes teacher workshop.

techniques–such as role playing, unit development, experiments, and focus groups– teachers learn how to integrate Great Lakes issues into their classrooms. They also receive instruction on the use of EPA's *Great Minds? Great Lakes!* curriculum resource which is distributed throughout EPA Region 5.

Although the majority of teacher workshops deal with Great Lakes issues, Region 5 is working to broaden its teacher education programs to include other high-priority environmental issues, such as air quality. EPA sponsored an air quality teacher education workshop for teachers in the Midwest, coordinated and given by the Wisconsin Department of Natural Resources.

EPA hopes to increase the number of teacher workshops by making teacher education and training a priority in its small grants program. In Region 5, EPA can also serve as a resource for making teachers aware of environmental education workshops sponsored by state and community organizations in the 6-State area.

Environmental Outreach

EPA Region 5 has a variety of environmental outreach programs geared toward students, teachers, industry, environmental organizations, and the general public. These include:

❍ **Conferences and Exhibits**. Through the year, EPA participates in many conferences, exhibits, and concurrent sessions, which allow EPA to network with the environmental education community.

❍ **Speakers' Bureau**. Through the Office of Public Affairs, EPA Region 5 coordinates its volunteer speakers. More than 200 EPA employees from all Divisions offer their expertise as speakers for schools, civic groups, industries, and environmental organizations. Since Region 5 headquarters is in Chicago, most speaking engagements are in Illinois, although speakers occasionally present in other regional States.

❍ **Hotline**. Through the Office of Public Affairs, EPA Region 5 offers a general-information hotline for the 6-State region. The toll-free hotline is available to anyone who would like to get information on environmental subjects. In addition, teachers or organizations can call the hotline for educational materials to be used with students, preK-12.

❍ **Partnerships**. EPA's environmental education program is made stronger through partnerships with other Federal, State, and local organizations and agencies. For example, EPA assists the Teachers' Academy for Teaching Math and Science with its education and outreach program for the Chicago public schools by sending scientists and engineers into the classroom to teach and promote the sciences through hands-on education. Other partnerships aim to reach a wide audience with innovative programs.

EPA Program Highlights

Although the Office of Public Affairs is primarily responsible for coordinating environmental education in Region 5, the help of other EPA Divisions and Offices is essential to successful environmental education. Through representation on the environmental education workgroup, EPA Divisions of Air and Radiation, Water, Waste Management, Planning and Management, Environmental Sciences and Regional Counsel as well as the Great Lakes National Program Office provide their own unique perspectives and programs on environmental education. Highlights include:

❍ **Air and Radiation Division**. The Division has filmed high school students in two public service announcements concerning the health effects of second-hand smoke. Announcements are geared toward adolescents. In addition, the Division has funded two grants on indoor air pollution. Both grants, one in Michigan and one in Minnesota, have a Native American focus.

❍ **Waste Management Division**. Personnel from the Division visit schools to educate students about waste issues such as recycling, solid waste management, and pollution prevention. Occasionally, EPA's mascot, the Garbage Gremlin, makes an appearance at these presentations.

❍ **Water Division**. The Wetlands and Watersheds Section of the Division has participated in various outreach-education activities for the public, including classroom presentations (K-12 and college), Earth Day activities, displays at conferences and fairs, and outdoor education programs offered by local community park districts. In addition, the Wetlands Program hopes to establish public-private partnerships to promote and increase sponsorship of wetlands activities at the State and local level.

❍ **Planning and Management Division**. The Division produced a poster called *Ecosystems of the Midwest* for grades 6-12. It describes the biodiversity of ecosystems and species in the Midwest, the decline of the diversity over the past 200 years, and things that individuals or groups can do to help restore and conserve habitats. The poster also has information about obtaining materials on environmental education. In addition, the Division is developing materials to accompany the poster, including a teacher's guide.

❍ **Environmental Sciences Division**. The Asbestos Control Section of this Division is developing a lesson plan for junior high school teachers to be used in teaching about the health hazards associated with lead exposure. Experts in curriculum development will design the format and develop the substance of the plan, with EPA providing the necessary technical assistance. The lesson plan should be ready for the 1994-95 school year.

❍ **Special Emphasis Programs**. Region 5 has a number of special emphasis programs coordinated by various subcommittees representing such populations as African-Americans, Asians, Hispanics, and women. Subcommittees often "adopt" local schools.

For example, the Hispanic Subcommittee annually awards college scholarships to four students from Clemente High School in Chicago. Another environmental education program sponsored through the special emphasis program is *Bring Your Daughter to Work Day*. By encouraging EPA employees to bring their daughters to work for a day, this program affords young women the opportunity to observe first-hand the many different career opportunities available for women in the sciences.

Great Lakes Environmental Education

In Region 5, the Great Lakes often serve as a focus of State and regional environmental education efforts. As the largest source of freshwater in the United States, this unique natural resource allows students, educators, and communities in Region 5 to engage in a variety of water-related environmental activities. In addition, the location of the Great Lakes on the U.S.-Canadian border fosters the development of environmental education partnerships between the two countries.

Most of EPA's Great Lakes educational activities are carried out by the Great Lakes National Program Office, with headquarters in Chicago, and the Region 5 Office of Public Affairs. The cornerstone of EPA's Great Lakes environmental education activities is the EPA Research Vessel *Lake Guardian*. Since 1991, the *Lake Guardian* has been conducting city tours throughout the Great Lakes. In 1992, school children from 14 cities visited the *Lake Guardian* and saw first-hand how this vessel monitors water quality in the Great Lakes. Students visiting the ship receive a copy of EPA's curriculum resource *Great Minds? Great Lakes!*, get to meet the ship's captain, and have a chance to talk to marine biologists about EPA's research.

Other Great Lakes environmental education activities include workshops that introduce teachers to EPA's Great Lakes curriculum resource, presentations at teacher conferences, and distribution of EPA's Great Lakes materials.

Captain Ingram explains the ship's operations to a group of students.

Environmental Education in the 6-State Region

EPA is just one of the many organizations offering programs in environmental education. At the State level, many innovative and exciting programs exist that deal with a variety of environmental issues and topics. States in the Region 5 area have been conducting environmental education programs for many years. As a result, some States in Region 5 have environmental education legislation, and many school systems in the six States teach an environmental curriculum to students of all ages.

Throughout the 6-State region, colleges and universities, community organizations, nonprofit groups, public and private schools, tribal councils, museums, State and local Government agencies, businesses, and private citizens are all taking the initiative in dealing with environmental problems and searching for solutions. EPA is charged with furthering environmental education efforts in the Federal government; however, the agency is also interested in supporting State and local projects whenever possible. EPA recognizes that the future of environmental education lies in these State and community grassroots efforts.

To learn more about environmental education programs and contacts at the State level, contact EPA Region 5's Environmental Education Coordinator at the address and telephone number listed at the back of this booklet.

Regional Administrator Valdas V. Adamkus (left) presents grant money to Amundsen High School, Chicago, for environmental education activities.

NATIONAL PROGRAMS

U.S. Environmental Protection Agency (EPA) - Headquarters
Environmental Education Division
401 M Street, S.W. (1707)
Washington, D.C. 20460
(202) 260-4965

National Environmental Education and Training Foundation
915 Fifteenth Street, N.W.
Suite 200
Washington,D.C. 20005
(202) 628-8200

National Consortium for Environmental Education and Training
University of Michigan
School of Natural Resources and Environment
Dana Building - 430 East University
Ann Arbor, Michigan 48109-1115
(313) 998-6726

EPA Environmental Education Grants Program
National Grants ($25,001 - $250,000)
EPA Environmental Education Division (1707)
401 M Street, S.W.
Washington, D.C. 20460
(202) 260-8619

Regional Grants (up to $25,000)
Environmental Education Coordinator
EPA Region 5 (P-19J)
77 West Jackson Boulevard
Chicago, IL 60604-3590
(312) 353-3209

Chicago Academy of Sciences
Ecological Citizenship Program
2001 North Clark Street
Chicago, IL 60614
(312) 549-0606

EPA National Youth Programs
EPA Environmental Education Division (1707)
401 M Street, S.W.
Washington, D.C. 20460
(202) 260-8749

EPA National Awards Programs
President's Environmental Youth Awards
EPA Region 5 (P-19J)
77 West Jackson Boulevard
Chicago, IL 60604-3590
(312) 886-7935

National Environmental Education Awards
EPA Environmenal Division (1707)
401 M Street, S.W.
Washington, D.C. 20460
(202) 260-4965

Internships
National Network for Environmental Management Studies
EPA Environmental Education Division (1707)
401 M Street, S.W.
Washington, D.C. 20460
(202) 260-5960

See also Academic Relations Program on page 20

Environmental Software Programs
EPA Region 5 (S-14J)
77 West Jackson Boulevard
Chicago, IL 60604-3590

Pollution Prevention Environmental Education Project
Environmental Education Coordinator
EPA Region 5
See reference in left column

International Projects
EPA Environmental Education Division (1707)
401 M Street, S.W.
Washington, D.C. 20460
(202) 260-4965

REGIONAL CONTACTS

Regional Grants Program
For information on future grants programs or past projects, contact Region 5's Environmental Education Coordinator
EPA Region 5 (P-19J)
77 West Jackson Boulevard
Chicago, IL 60604-3590
(312) 353-3209

Curriculum Resources
EPA Region 5 Toll-Free Hotline
77 West Jackson Boulevard (P-19J)
Chicago, IL 60604-3590
1-800-621-8431

Post-Secondary Programs
Academic Relations Program
EPA Region 5 (S-14J)
77 West Jackson Boulevard
Chicago, IL 60604-3590

Teacher Education Programs
Environmental Education Coordinator
See reference above

Environmental Outreach
Conferences and Exhibits
Environmental Education Coordinator
See reference above

Speakers' Bureau
EPA Region 5, (P-19J)
77 West Jackson Boulevard
Chicago, IL 60604-3590
(312) 886-7935

Science Fair Judges
See previous reference

Region 5 Toll-Free Hotline
1-800-621-8431

Partnerships
Environmental Education Coordinator
See previous reference

Division Highlights
EPA Region 5
Environmental Education Workgroup
(contact through Environmental Education Coordinator)

Great Lakes Environmental Education
Lake Guardian Tours
EPA Region 5 (P-19J)
77 West Jackson Boulevard
Chicago, IL 60604-3590
(312) 886-7478

Teacher Education and other
Great Lakes Education efforts
Environmental Education Coordinator

State Environmental Education
Environmental Education Coordinator

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If your plan is for 1 year,
plant rice;

if your plan is for 10 years,
plant trees;

if your plan is for 100 years,
educate children

Confucius

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Region 5
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